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ABSTRACT

A study investigated the influence of communication apprehension on preference for channel of communication: face-to-face meeting, telephone call, or written note. Subjects, 68 college and vocational-technical school faculty, were interviewed on a variety of topics, including telephone apprehension (TA); and completed written tests for speech apprehension (SA), communication apprehension (CA), and writing apprehension (WA). The results showed that 25% enjoyed using the phone and used it at every opportunity, 68% used the phone whenever they had to, and 6% disliked the phone but used it when necessary. Responses to vignettes that required the subject to identify his or her preferred communication channel in a given situation indicated that respondents preferred face-to-face meetings over either telephone calls or notes, and this tendency was especially pronounced for conflict vignettes. There was also a tendency for subjects to prefer receiving face-to-face messages more often than they preferred sending them. The results indicated that communication channel preferences are related to communication apprehension. Telephone use was accounted for in part by TA, choices between paired channels (talk vs. phone, writing vs. phone) were affected by TA or WA, and vignette channel preferences were accounted for in part by relative comfort with face-to-face communication. (Copies of the survey instruments are appended.) (HTH)

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COMMUNICATION APPREHENSION AS A DETERMINANT OF CHANNEL PREFERENCES

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Organizational Communication Division
International Communication Association

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ABSTRACT

The effects of communication apprehension on channel (face-to-face, telephone, written) choices were investigated in a population of 68 educators. Results indicated that various measures of communication apprehension, telephone apprehension, and writing apprehension, can account for a small, significant percentage of the variance in channel preferences. Results were interpreted as suggesting that personal fears (apprehensions) have the potential to reduce organizational efficiency and interfere with the achievement of personal goals.

COMMUNICATION APPREHENSION AS A DETERMINANT OF CHANNEL PREFERENCES

Many individuals who are members of an organization are required to initiate communication with other members of the organization. In order to initiate communication one must select a communication channel: Three options are typically available, a face-to-face meeting, a telephone call, or a written note. Experience suggests that channel selection decisions rarely require full engagement of an individual's decision making skills and in fact are frequently matters of habit. Experience also suggests that channel decisions may be affected by a variety of factors including proximity, organizational structure, interpersonal relationships, message content and, perhaps, communication apprehension.

This paper reports an investigation of the influence of communication apprehension on channel preferences. While this topic has been largely overlooked by social scientists it is potentially a significant one. In the contemporary business climate communicators are increasingly aware of channel as a communication variable. In many cases organizational leaders are seeking to alter channel decisions by reducing reliance on some channels (travel, letter writing) and increasing reliance on others (telephone, electronic message systems). At such a time it would be helpful to know

whether and to what extent channel preferences are shaped by individual apprehensions. If apprehension is an important influence it should be considered by executives who hope to secure the cooperation of employees in switching from one channel to another (e.g., from travel to telephone), or in adopting an entirely new channel (e.g., videoconferencing).

Relevant Literature

Both the research on communication channel and the research on communication apprehension is voluminous. Only the most relevant studies are noted here.

Study of communication channel has accelerated in recent years as scholars have studied various forms of electronic communication in comparison to face-to-face and other channels. Much of this research has treated channel as an independent variable with the goal of determining whether teleconferencing might adequately replace face-to-face meetings.[1]

In a study more relevant to the current investigation Brian G. Champness treated channel as an independent variable and attitude toward the channel as a dependent variable. The three channels tested were face-to-face, loudspeaking audio, and closed-circuit television. A number of attitudinal differences were noted leading the author to conclude that "the manner, and even the probability, of use of real-life person-person communication systems are likely to be affected by attitudes toward them."[2]

But only a few studies have investigated the influence of various factors on channel choice. For example, in a study by Bruce Christie and Susan Holloway subjects were given information concerning a hypothetical conference and required to choose between traveling to a face-to-face meeting or using a telecommunication system. Subjects tended to choose telecommunications more often when the discussion involved acquaintances rather than strangers, and when the travel time was long.[3] In a similar study by Bruce Christie and Stephen Kingan subjects were given nine hypothetical cases and in each case required to choose between using a telecommunications system or traveling to a face-to-face meeting. Results indicated that the subjects were significantly more likely to choose telecommunications as the expected duration of the discussion grew shorter and as the length of the journey grew longer.[4] The studies by Christie and his colleagues demonstrate that proximity, message content, and interpersonal relationships can influence channel choice.

In a descriptive study David W. Conrath investigated communication episodes in a Canadian manufacturing plant. He reported 66 percent of the episodes were face-to-face meetings, 13 percent were telephone calls, and 21 percent were written communication. His results indicate that proximity increased face-to-face communication and, surprisingly, that proximity also increased written communication. Telephone communication was generally unaffected by proximity.[5] Conrath's data indicate that all three channels (face-to-face,

telephone, written communication) are used frequently, and provide some evidence concerning factors which influence channel choice.

The communication channel research demonstrates, then, that several factors can be influential. But the research does not directly address Champness' claim that attitude toward media is an important variable and none of the prior studies touch upon what could be a very important attitude toward media, i.e., communication apprehension.

In the extensive communication apprehension literature various forms have been conceptualized and investigated, including speech apprehension, communication apprehension, writing apprehension, and listening apprehension.

Communication apprehension is relevant to the work environment in several ways. Apprehension affects occupational choice, job applications, job satisfaction, and job tenure. Persons with high communication apprehension apparently seek jobs which require lower levels of interaction and avoid participation in apprehension inducing forms of communication.[6]

Some attention has also been given to telephone apprehension. Phillip V. Lewis and N. L. Reinsch, Jr. collected data from 126 students and teachers. Each respondent completed tests for speech apprehension, communication apprehension, writing apprehension, and telephone apprehension. Telephone apprehension was significantly correlated

with communication apprehension ($r = .383$, $p = .002$) but not with speech apprehension ($r = .141$) or writing apprehension ($r = -.052$).[7] It is not yet known whether telephone apprehension affects communication behavior. Telephone apprehension has not attracted much attention from scholars and, consequently, is not well understood.

Based on the preceding review of literature a single research question was generated: Are the channel preferences of individuals in organizations related to oral, written, and telephone communication apprehension? An affirmative answer to the question was anticipated. For example, an individual with high writing apprehension should tend to prefer a face-to-face meeting or a phone call rather than a written memo, while a person with high oral communication apprehension should prefer to use a written channel.

Procedures

Subjects were faculty members in three academic departments (music, agricultural economics, business education) at a large, public university and faculty members at a nearby vocational-technical school. Faculty members of educational institutions seemed to meet the primary selection criteria, i.e., they frequently confront channel choices of the sort we wished to investigate.

Each subject was interviewed by a communication graduate student. The interviewers followed an interview schedule

and explored a variety of topics including telephone apprehension (TA). The interviewers also asked each interviewee to complete written tests for speech apprehension (SA), communication apprehension (CA), and writing apprehension (WA).

The apprehension tests were all adapted from prior research. TA was measured by asking the interviewee to respond to each of three Likert-type items on a one-to-five, strongly agree to strongly disagree, scale. These items had been used by Lewis and Reinsch and found to have an internal reliability of 0.692.[8]

The most frequently used measure of SA is James C. McCroskey's Personal Report of Communication Apprehension (PRCA).[9] D. Thomas Porter has appraised the PRCA and concluded that a 13-item version with an internal reliability of 0.91 is more efficient than McCroskey's 20-item original.[10] Porter's 13-item version was used in this research.

Subsequent to the development of the PRCA, an attempt was made to develop a test which measured generalized CA in organizational contexts. In 1978, Michael D. Scott, James C. McCroskey, and Michael E. Sheahan published a 20-item test they called the Personal Report of Communication Apprehension--Organization Form (PRCA-OF). They calculated the reliability of this instrument at 0.91. A slightly abbreviated version of the PRCA-OF was used in this study: Two items which were exact duplicates of items on the SA test were deleted.[11]

A 20-item Writing Apprehension Test (WAT) for use in

non-classroom situations has been published by John A. Daly and Michael D. Miller. Reliability of the instrument was calculated at 0.921.[12] We used an abbreviated version of the WAT. Porter has argued that communication apprehension tests may measure "evaluation apprehension" rather than communication apprehension.[13] We concluded that Porter's criticism, originally lodged against the PRCA, definitely applied to the WAT since several items focused explicitly on evaluation. For example, one item read "I have no fear of my writing being evaluated," and another read "I don't like my compositions to be evaluated." We eliminated eight items for this reason and used the 12 remaining items[14] as a measure of WA.

Additional information concerning data collection procedures is included, where appropriate, in the following discussion of results. All statistical analysis was conducted with SPSS programs.[15]

Results

Usable data was collected from faculty members in agricultural economics (n = 20), music (n = 15), business education (n = 18), and from faculty members at the vocational-technical school (n = 15). The 68 subjects included 46 white men, one black man, and 21 white women. The modal age category was 26-45 (n = 41) and there were respondents under 25 (n = 7), 46-65 (n = 18), and over 64 (n = 2). The respondents had an average of 11.24 years teaching experience

and an average of 8.51 years experience with the current institution.

Before attempting to answer the research question, each apprehension test was evaluated for internal reliability. The 13-item test for SA had an alpha reliability coefficient of 0.883. SA scores ranged from 15 to 54 with a mean of 31.91 and a standard deviation of 8.30. The 18-item test of CA had an internal reliability of 0.882. CA scores ranged from 19 to 64 with a mean of 39.82 and a standard deviation of 8.93. WA was measured with a 12-item test having an internal reliability of 0.895. WA scores ranged from 12 to 48 with a mean of 27.68 and a standard deviation of 8.78.

Telephone apprehension was to have been measured with a three-item test. This test had an internal reliability of only 0.55. One item did not correlate strongly with the other two items and it was decided to treat this item as a separate measure of TA. Consequently there were two tests of TA. One test (TA2) consisted of two highly correlated (0.80) items (I do not like to talk on the telephone. I enjoy talking on the telephone): Scores ranged from 2 to 9 with a mean of 4.24 and a standard deviation of 1.88. The other test (TA1) consisted of one item (When I have to talk on the telephone I grow nervous and uncomfortable): Scores ranged from 1 to 5 with a mean of 1.62 and a standard deviation of 0.86.

SA scores were collected for comparative purposes. Since a public speaking channel was not identified SA was not

expected to affect channel choices. But, since SA is the most widely studied form of communication apprehension, it seemed useful to compare CA, WA, and TA scores with SA scores. As shown in Table 1, SA, CA, and WA scores were mutually and positively correlated. TA1 scores were positively correlated with CA and WA scores, but TA2 scores did not correlate significantly with any other test scores. The correlations between SA, CA, and WA and the correlation between CA and TA1 are comparable to prior research. The correlation between WA and TA1 and the absence of significant correlation between CA and TA2 are puzzling and are, perhaps, artifacts of the TA items.

Table 1 about here

The primary research question concerned whether channel preferences were affected by communication apprehension. Since various dimensions of channel preference had been measured in various ways it was necessary to approach the data from several perspectives in order to answer the research question.

The first method of measuring channel preference focused only on the telephone and consisted of a single multiple-choice item first used by Alan H. Wurtzel and Colin Turner.[16] The interviewee was required to select a description of his or her telephone behavior from the following list: (1) I enjoy using the telephone and use it at every opportunity,

(2) I use the telephone whenever I have to, (3) I dislike using the phone but use it when necessary, (4) I avoid using the phone as much as possible. Sixty-seven interviewees answered the question, of whom 17 (25.4%) selected option 1, 46 (68.7%) selected option 2, and 4 (6.0%) selected option 3.

The relationship between responses to the multiple-choice item and apprehension scores was examined with multiple linear regression. Analysis yielded an R value of 0.468 (Y' = 3.749 - 0.132 TA2; adjusted R^2 = 0.207, p = 0.0001). Only a single measure of apprehension, TA2, was a significant predictor and the equation accounted for less than 21 percent of the variance.

The second measure of channel preference consisted of two orally administered items. One item was "I would always prefer to talk to someone by telephone rather than face-to-face" and the other item was "In general I would rather write a letter than make a phone call." Interviewees responded to each item on a one-to-five scale (strongly agree to strongly disagree).

Numerical responses to each item were treated as a criterion variable for stepwise linear regression with various measures of apprehension. Analysis of the "talk vs phone" item yielded an R value of 0.287 (Y' = 4.556 + 0.317 TA1; adjusted R^2 = 0.069, p = 0.02). Only a single measure of apprehension, TA1, was a significant predictor. Analysis of the "write vs phone" item yielded an R value of 0.371 (Y' = 2.754 - 0.039 WA; adjusted R^2 = 0.124, p = 0.002).

The single significant predictor was WA; the remaining predictor which came closest to entering the equation was TA1 (partial r = +0.202, p = 0.10). In these results apprehension did relate to channel preferences but accounted for less than 13 percent of the variance.

A third method of measuring channel preference consisted of eight very short vignettes which required the interviewee to identify his or her preferred communication channel (meet face-to-face, telephone, write a note). Four vignettes specified that the interviewee needed to send a message to another person and four specified that the interviewee was to receive a message. Two vignettes identified the other person as a student; two, as a member of the faculty; and two, as an administrator. Two vignettes did not identify the other person but did specify that the interviewee was "having a conflict" with him or her. One vignette, for example, read as follows: "If you were having a conflict with someone and you needed to send a message to that person would you generally prefer to meet face-to-face, telephone, or write a note?"

Responses are summarized in Table 2. In general respondents preferred a face-to-face meeting over either a telephone call or a note, and this tendency was especially pronounced for the conflict vignettes. There was also a tendency for interviewees to prefer to receive face-to-face messages more often than they preferred to send them.

Table 2 about here

Each respondent was assigned three scores indicating the number of times he or she expressed a preference for each of the three channels; each score had a potential range from zero to eight. These scores were ordinal data.

Each subject was also assigned a score indicating which channel caused him or her the least amount of apprehension. This index was derived by normalizing apprehension test scores (CA, WA, TA2 or TA1) and comparing the resulting Z-scores: For example, an individual was identified as fearing least that form of communication on which he or she achieved the smallest normalized score. This index was nominal.

Chi-square tests were then performed to examine possible relationships between patterns of channel choice and the index of least feared communication channel.[17] In only one instance did the results achieve conventional levels of significance. Individuals whose normalized CA scores were lower than either their WA scores or TA scores were more likely to have frequently chosen face-to-face meetings in the eight vignettes. As shown in Table 3 this effect held true both when TA was measured with TA2 and when TA was measured with TA1. The effect accounted for a little over one-third of the variance (C = 0.386, 0.369).

Table 3 about here

Discussion

The question addressed in this study was whether communication channel preferences are related to communication apprehension. The results permit an affirmative answer--it appears that apprehension does affect channel preference. Self reports of telephone use can be accounted for in part by TA, choices between pairs of media ("talk vs phone," "write vs phone") are affected by TA or WA, and vignette channel preferences can be accounted for in part by relative comfort with face-to-face communication (low CA). In every case, however, apprehension accounted for only a fraction of the variance so it would appear that apprehension is not the primary determinant of channel choice. This is not surprising--many individuals do not experience high levels of apprehension and even individuals who are apprehensive usually consider factors in addition to personal feelings while choosing a communication channel.

The current study is limited to a small sample of individuals who are members of educational organizations. It is further limited to self reports as opposed to observations of actual channel choices. Further research will be needed to determine if apprehension can be used to predict actual communication behaviors in organizations. But the present results do suggest that the relationship between apprehension and channel choice is worthy of further study.

Some communication events may be conducted in a less than optimum channel due to individual apprehensions. Channel decisions may be distorted by personal fears. An employee may spend time walking to a meeting rather than conducting the conversation by phone, or an employee may select an oral channel in circumstances where a written record is desirable. Such errors can interfere with organizational efficiency and productivity. Individuals with extremely high apprehension of a channel may be handicapped by their avoidance of the channel. Such channel avoidance can interfere with achievement of both organizational and individual goals.

The results reported in this paper do not fully explain the relationship between apprehension and channel choice. But the results do suggest that members of organizations and business communication educators might benefit from a better understanding of the effects of apprehension on channel choices.

NOTES AND REFERENCES

[1]Reviews may be found in the following sources: Martin C. J. Elton and John Carey, Implementing Telecommunications Services (New York: Alternate Media Center, New York University, n.d.); Gene D. Fowler and Marilyn E. Wackerbarth, "Audio Teleconferencing versus Face-to-Face Conferencing: A Synthesis of the Literature," Western Journal of Speech Communication, 44 (1980), 236-252; Robert Johansen, Jacques Vallee, and Kathleen Spangler, Electronic Meetings: Technical Alternatives and Social Choices (Reading, Mass.: Addison-Wesley, 1979); Lorne A. Parker and Mavis K. Monson, More Than Meets the Eye (Madison, Wis.: University of Wisconsin-Extension, 1980); and John Short, Ederyn Williams, and Bruce Christie, The Social Psychology of Telecommunications (London: John Wiley & Sons, 1976).

[2]"Attitudes Toward Person-Person Communications Media," Human Factors, 15 (1973), 446.

[3]"Factors Affecting the Use of Telecommunications by Management," Journal of Occupational Psychology, 48 (1975), 3-9.

[4]"Electronic Alternatives to the Business Meeting: Managers' Choices," Journal of Occupational Psychology, 50 (1977), 265-273.

[5]"Communications Environment and Its Relationship to Organizational Structure," Management Science, 20 (1973), 586-603; "Communication Patterns, Organizational Structure, and Man: Some Relationships," Human Factors, 15 (1973), 459-470.

[6]John A. Daly and James C. McCroskey, "Occupational Desirability and Choice as a Function of Communication Apprehension," Journal of Counseling Psychology, 22 (1975), 309-313; John A. Daly and Wayne G. Shamo, "Writing Apprehension and Occupational Choice," Journal of Occupational Psychology, 49 (1976), 55-56; Raymond L. Falcione, James C. McCroskey, and John A. Daly, "Job Satisfaction as a Function of Employees' Communication Apprehension, Self-Esteem, and Perceptions of Their Immediate Supervisors," in Communication Yearbook I, ed. Brent D. Rubin (New Brunswick, NJ: Transaction-International Communication Association, 1977), pp. 363-375; James C. McCroskey and Virginia P. Richmond, "The Impact of Communication Apprehension on Individuals in Organizations," Communication Quarterly, 27, No. 3 (1979), 55-61.

[7]"The Good, the Bad, and the Apprehensive: On the Prevalence and Significance of Apprehension in the Business Communication Classroom," American Business Communication Association Convention, New Orleans, 22 October 1982.

[8]Lewis and Reinsch, "The Good, the Bad, and the Apprehensive."

[9]"Measures of Communication-Bound Anxiety," Speech Monographs, 37 (1970), 269-277.

[10]"An Empirical Appraisal of the PRCA for Measuring Oral Communication Apprehension," Human Communication Research, 8 (1981), 58-71.

[11]"Measuring Communication Apprehension," Journal of Communication, 28, No. 1 (1978), 104-111. Items #10 and #14 (p. 107) were deleted.

[12]"The Empirical Development of an Instrument to Measure Writing Apprehension," Research in the Teaching of English, 9 (1975), 242-249.

[13]Porter, "An Empirical Appraisal," p. 68.

[14]Daly and Miller, "The Empirical Development," p. 246, items #1, #3, #7, #8, #10, #13, #15, #16, #17, #19, #23, #26.

[15]C. Hadlai Hull and Norman H. Nie, SPSS Update 7-9: New Procedures and Facilities (New York: McGraw-Hill, 1981); Norman H. Nie, C. Hadlai Hull, Jean G. Jenkins, Karin Steinbrenner, and Dale H. Bent, Statistical Package for the Social Sciences, 2nd ed. (New York: McGraw-Hill, 1975).

[16]"What Missing the Telephone Means," Journal of Communication, 27, No. 2 (1977), 52.

[17]In evaluating preference for written channel the data were analyzed both for all eight vignettes and for only the four "send" vignettes. This was because WA is clearly concerned with message sending while CA and TA would seem to relate both to message sending and receiving due to the interactive nature of those channels.

TABLE 1

CORRELATION BETWEEN APPREHENSION TESTS

	SA	CA	WA	TA2	TA1
SPEECH APPREHENSION	----	.649*	.338*	.155	.170
COMMUNICATION APPREHENSION		----	.291*	.101	.202*
WRITING APPREHENSION			----	.173	.226*
TELEPHONE APPREHENSION (2)				----	.075
TELEPHONE APPREHENSION (1)					----

*p = .05

TABLE 2

CHANNEL CHOICES IN EIGHT SITUATIONS

Vignette	Face-to-Face	Telephone	Write a Note
Receive Message from:			
Conflict partner	58 (87%)*	3 (4%)	6 (9%)
Student	34 (52%)	20 (31%)	11 (17%)
Faculty Member	30 (46%)	22 (34%)	13 (20%)
Administrator	34 (51%)	14 (21%)	19 (28%)
Send Message to:			
Conflict Partner	54 (81%)	5 (7%)	8 (12%)
Student	28 (42%)	25 (37%)	14 (21%)
Faculty Member	25 (37%)	26 (39%)	16 (24%)
Administrator	26 (39%)	15 (22%)	26 (39%)

*Row percentages. N does not always total to 68 due to missing data.

TABLE 3

CHI-SQUARE TESTS: CHANNEL PREFERENCE
BY LEAST APPREHENSION

		Number of vignettes preferred face-to-face meeting.			
		0-2	3-4	5-6	7-8
Lowest Normalized Apprehension Score	CA	2 (9%)*	10 (43%)	3 (13%)	8 (35%)
	WA or TA1	15 (33%)	11 (24%)	14 (31%)	5 (11%)

Chi-square = 11.930, p = .01.

		Number of vignettes preferred face-to-face meeting.			
		0-2	3-4	5-6	7-8
Lowest Normalized Apprehension Score	CA	2 (10%)	7 (35%)	3 (15%)	8 (40%)
	WA or TA2	15 (31%)	14 (29%)	14 (29%)	5 (10%)

Chi-square = 10.740, p = .05.

*Row percentages.

APPENDIX A

SUPPLEMENTARY DATA ON TELEPHONE APPREHENSION

Since TA is a relatively new research variable, an effort was made to gather information which might facilitate improved conceptual and operational definitions of the concept. Interviewees were asked open-ended questions in three areas.

The first interview question was intended to elicit the interviewee's feelings toward talking on the telephone. The interviewer stated "Some people enjoy talking on the telephone--others do not like to talk on the phone" and then asked "How do you feel about talking on the telephone?" Nineteen (28%) of the respondents offered favorable comments such as "I enjoy it" or "I love to talk on the phone." Twenty-four (35%) professed to be generally neutral, claiming to "have no real feelings about it," to be "neutral" or "indifferent." Fourteen (21%) of the interviewees said that their attitudes toward the telephone were situation specific: Five people said it depended on who they were talking to, indicating that they enjoyed talking on the phone to someone they already knew; seven said they enjoyed short telephone conversations but not long ones; another individual specified certain topics as hard for him to discuss by phone. Eleven (16%) offered negative comments such as "I don't like to," "I hate it," "I'd rather not," and "Generally, I do not enjoy phone conversations." One person said he used the phone strictly for business and did not use it socially. Another said he hated the ringing noise, and got "in a foul mood" as soon as the phone rang.

Interviewees were also asked whether or not they knew anyone who was uncomfortable talking on the phone. The interviewer asked whether or not the respondent had ever known someone who was "very uncomfortable talking on the phone" and who would "go to great lengths to avoid the telephone." If the interviewee answered affirmatively, the interviewer asked the respondent to "tell me about" him or her.

Twenty-one (31%) of the respondents claimed to know someone who was very uncomfortable talking on the telephone and 20 provided some description of the person or persons they had in mind. The individuals so described included (when identified) a grandparent, parents, faculty colleagues, interviewees, and friends.

In four cases the respondent described TA as a temporary state which occurred when one "got tired of constant use" of the phone, had to telephone a stranger, found it hard to "reassure people" (especially strangers) over the phone, or just had "a feeling that occurs at isolated times."

In fourteen cases the interviewee described TA as a continuing trait attributable to growing up without a telephone, impaired hearing, infrequent use of the telephone, nervousness due to lack of formal education, lack of skill in social "chit chat," believing the telephone is not effective, being a "creative genius" for whom the telephone is an interruption, or being the "nervous type" that is too busy to talk on the phone.

Persons with TA were described as refusing to answer the telephone, speaking in a "short or abrupt" manner, holding the phone rigidly and far away from the ear, postponing discussion to shorten phone calls ("We can talk about that when I see you"), making extra trips to avoid calling, and delegating telephone responsibilities ("Why don't you call"). One respondent claimed to know a "whole family" that just "won't answer" their own telephone.

The final two open questions were follow-up questions ("Why do you say that?") after the interviewee had answered each of two channel preference items ("talk vs phone" and "write vs phone"): These items were discussed in the body of the paper. The purpose of the two open questions was to see if respondents would volunteer communication apprehension as an explanation for channel preferences. No individual admitted to choosing between a phone call and a face-to-face meeting on the basis of apprehension. But six individuals cited comfort or discomfort with writing in choosing between a phone call and writing: Three expressed positive attitudes toward writing (e.g., "I enjoy writing") and three expressed negative attitudes (e.g., "I do not like to write"). The answers to both open questions were also examined to identify perceived advantages and disadvantages of the telephone, i.e., factors other than apprehension which may influence channel choice.

In comparison to a face-to-face meeting, a phone call was perceived as having the following advantages: (1) it saves time (n = 5); (2) it permits personal contact with

someone who is geographically distant (n = 4); (3) it allows you to put distance between you and a person with whom you are uncomfortable (n = 1). A phone call was seen as having the following disadvantages: (1) one is deprived of nonverbal cues, especially facial expression (n = 22); (2) it is less personal (n = 9); (3) it does not facilitate conflict resolution (n = 5); (4) it is not appropriate for discussing sensitive or important items (n = 5); (5) it is harder to bring a phone call to an end (n = 2); (6) it hampers sharing of detailed information (n = 2); (7) it hinders "selling" an idea (n = 2); (8) it permits one to be lied to more easily (n = 1); and (9) it may be seen as less respectful (n = 1).

In comparison to a letter, a phone call was seen as having the following advantages: (1) it takes less time (n = 24); (2) it reaches the recipient without delay (n = 12); (3) it is easier to initiate (n = 7); (4) it provides more, and more immediate feedback (n = 6); (5) it permits one to expand or reduce an explanation as needed (n = 5); (6) it is less formal (n = 2); (7) it provides some nonverbal communication (n = 2); and (8) it is cheaper (n = 1). A phone call was seen as having the following disadvantages: (1) it does not provide a permanent record: "A letter lasts forever. A phone call is just an atmospheric disturbance. It disappears." (n = 7); and (2) it does not always successfully reach the intended recipient (n = 1).

In summary, responses to open-ended interview questions suggest TA is perceived as having both state and trait

dimensions, is popularly attributed to several different causes, and is believed to produce a variety of disfunctional behaviors. Few individuals cite telephone apprehension as a factor which influences personal channel choices, preferring instead to offer a number of advantages and disadvantages of the telephone: But this result does not invalidate the apprehension concept since it may simply reflect the fact that other factors (e.g., message content) are frequently more important than attitudes toward media.

APPENDIX B

ITEM RELIABILITY DATA ON APPREHENSION TESTS

TABLE 4

SPEECH APPREHENSION: ITEM-TOTAL CORRELATIONS

Item		Corrected Item-Total Correlation
1.	I always avoid speaking in public if possible.	.497
2.	Although I talk fluently with friends I am at a loss for words on the platform.	.651
3.	I look forward to an opportunity to speak in public.*	.707
4.	I am fearful and tense all the while I am speaking before a group of people.	.526
5.	My thoughts become confused and jumbled when I speak before an audience.	.599
6.	I feel relaxed and comfortable while speaking.*	.669
7.	I face the prospect of making a speech with complete confidence.*	.777
8.	I have no fear of facing an audience.*	.621
9.	I would enjoy presenting a speech on a local television show.*	.652
10.	I feel that I am more fluent when talking to people than most other people are.*	.389
11.	Although I am nervous just before getting up, I soon forget my fears and enjoy the experience.*	.192
12.	My hands tremble when I try to handle objects on the platform.	.689
13.	I look forward to expressing my opinions in meetings.*	.460

*Polarity reversed.

TABLE 5

COMMUNICATION APPREHENSION: ITEM-TOTAL CORRELATIONS

Item		Corrected Item-Total Correlation
1.	People can usually count on me to keep a conversation going.*	.550
2.	Conversing with people who hold positions of authority is something I really enjoy.*	.508
3.	I feel self-conscious when I am called upon to answer a question or give an opinion.	.506
4.	I am basically an outgoing person.*	.608
5.	When I have to represent my organization to another group I feel very tense and nervous.	.574
6.	I am afraid to express myself in a group.	.552
7.	When I'm with other people, I often have difficulty thinking of the right things to talk about.	.518
8.	I enjoy fielding questions at a meeting.*	.474
9.	I'm afraid to speak up in conversations.	.629
10.	In most situations, I generally know what to say to people.*	.527
11.	I enjoy talking to my subordinates.*	.337
12.	I talk less because I'm shy.	.662
13.	Talking to my supervisor makes me nervous.	.320
14.	I like to get involved in group discussions.*	.548
15.	Conversing with people who hold positions of authority causes me to be fearful and tense.	.335
16.	I enjoy representing my organization to other groups.*	.655
17.	I look forward to interviewing people applying for a job as my subordinate.*	.383
18.	I consider myself to be the silent type.	.553

*Polarity reversed.

TABLE 6

WRITING APPREHENSION: ITEM-TOTAL CORRELATIONS

Item		Corrected Item-Total Correlation
1.	I avoid writing.	.637
2.	I look forward to writing down my ideas.*	.771
3.	My mind seems to go blank when I start to work on a composition.	.486
4.	Expressing ideas through writing seems to be a waste of time.	.550
5.	I like to write my ideas down.*	.690
6.	I'm nervous about writing.	.609
7.	I enjoy writing.*	.833
8.	I never seem to be able to clearly write down my ideas.	.723
9.	Writing is a lot of fun.*	.768
10.	I like seeing my thoughts on paper.*	.728
11.	It's easy for me to write good compositions.*	.761
12.	I'm no good at writing.	.630

*Polarity reversed.

TABLE 7

TELEPHONE APPREHENSION: ITEM-TOTAL CORRELATIONS

Item	Corrected Item-Total Correlation
1. I do not like to talk on the telephone.	.532
2. I enjoy talking on the telephone.*	.539
3. When I have to talk on the telephone I grow nervous and uncomfortable.	.075

*Polarity reversed.